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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,413	02/25/2004	Shigeru Yao	054160-5012-02	9813

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

ME

Office Action Summary

Application No.

10/785,413

Applicant(s)

YAO ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1771

1. All of the art rejections and the double patenting rejections are maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-24, and 26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2-2856 substantially as set forth in the 04/04/2005 Office Action.
5. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over over JP 2-2856 as applied to claims 15 and 21, in view of Dorval et al (US 5,547,833) substantially as set forth in the 04/04/2005 Office Action.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164

USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 15-24 and 26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-31 of copending Application No. 10/784,982 substantially as set forth in the 04/04/2005 Office Action.

Response to Arguments

8. The art rejections over JP 2-2856 taken alone and in combination with secondary reference have been maintained for the following reasons. Applicants argue that the polyimide resin film of the present invention is formed from a polyimide precursor solution while the polyimide resin film of the JP'856 invention is prepared from a polyimide resin which is a commercially available product. Applicants, in their opinions, go on and state that the porous film disclosed in the JP'856 invention would exhibit different physicochemical properties than that of the present invention due to relatively small molecular weight polyimide pieces which are soluble in an organic solvents. The arguments are not found persuasive for patentability because no experimentation data, no factual evidence have been provided to support Applicants' assertions. Thus, Applicants have failed to demonstrate that the presently claimed polyimide resin film being

structurally different than that of the JP'856 patent. "The polyimide precursor" and the "commercially available polyimide resin" are not structurally different because they are related to polyimide resins obtained from the combination of at least one tetracarboxylic acid component and a diamine component. Further, "the polyimide precursor" and the "commercially available polyimide resin" are starting materials, not the final products as recited by the claims. Finally, JP'856 teaches a porous film for liquid filtration comprised of a polyimide having a formula as shown at page 1 of the translation. The formula indicates that the polyimide resin film obtained from the combination of biphenyltetracarboxylic dianhydride component and a diaminodiphenylether component. The porous film has a mean pore size, and thickness within the claimed ranges. The film is fabricated by a film casting method (page 4). JP'856 discloses the polyimide film having the pores in the center and on both surfaces of the film (page 5). JP'856 does not disclose the film having the pores forming fine continuous channels reaching to both surfaces of the film in a non-linear fashion. However, it appears that the porous film is useful for liquid or water filtration, the pores would be substantially inherently interconnected to form continuous channels reaching to both surfaces of the film in a non-linear fashion for successful infiltration. JP'856 discloses the film having high porosity in order to obtain a higher water flux. JP'856 does not specifically disclose the film porosity. It appears that the porosity is dictated by the mean pore size and a process of forming the film. The porous film is made from a polyimide obtained from the combination of one

Art Unit: 1771

tetracarboxylic acid component and one diamine component. The porous film has an average pore size within the claimed range. The porous film is formed by a film casting method. Therefore, it is not seen that the porosity could have been outside the claimed range as the same starting materials and the same technique are employed to form the porous film having the pore size within the claimed range. JP'856 does not specifically disclose the air resistance, heat resistance, heat shrinkage and dielectric constant. However, it appears that the porous film has the mean pore size, thickness within the claimed range. The porous film is made from the same materials and the same process as that of the present invention. The porous film substantially has a continuous channels reaching to both surfaces of the film in a non-linear fashion in the center and both surfaces of the film for successful water infiltration. It is the examiner's position that the air resistance, heat resistance, heat shrinkage and dielectric constant would be inherently present. Like material has like property. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Accordingly, the art rejections are sustained.

9. The double patenting rejections will not be withdrawn until the terminal disclaimer is submitted.

Conclusion

Art Unit: 1771

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

HAI VO
PRIMARY EXAMINER